

WHAT IS CLAIMED IS:

1. An interposer for use in a semiconductor package, the interposer comprising:

an interposer body molded from a dielectric material, the interposer body defining opposed top and bottom surfaces, an outer peripheral edge, and an inner peripheral edge;

a die pad having opposed top and bottom surfaces and a peripheral edge, the die pad being embedded within the interposer body such that the bottom surface of the die pad is exposed in and substantially flush with the bottom surface of the interposer body, the inner peripheral edge of the interposer body and the top surface of the die pad collectively defining a cavity of the interposer; and

a plurality of electrically conductive interposer leads embedded within the top surface of the interposer body and at least partially exposed therein, each of the interposer leads defining a land;

the interposer body forming a non-conductive barrier between each of the interposer leads and between the interposer leads and the die pad.

2. The interposer of Claim 1 wherein each of the interposer leads includes a finger portion having a top surface which is exposed in and substantially flush with the top surface of the interposer body.

3. The interposer of Claim 2 wherein:

the finger portion of each of the interposer leads has an interior terminal end which extends to the cavity and an exterior terminal end which extends beyond the outer peripheral edge of the interposer body; and

each of the interposer leads further includes a protuberance which projects downwardly from the finger portion in close proximity to the exterior terminal end thereof, the protuberance being oriented outward of the outer peripheral edge of the interposer body and defining the land.

4. The interposer of Claim 3 wherein the land of each of the interposer leads, the bottom surface of the die pad, and the bottom surface of the interposer body extend in generally co-planar relation to each other.

5. The interposer of Claim 2 wherein:

the finger portion of each of the interposer leads has an interior terminal end which extends to the cavity and an exterior terminal end which extends beyond the outer peripheral edge of the interposer body; and

each of the interposer leads includes a downset which is formed within the finger portion thereof in close proximity to the exterior terminal end, the downset being partially covered by the interposer body and defining the land which is exposed in the bottom surface of the interposer body.

6. The interposer of Claim 5 wherein the land of each of the interposer leads, the bottom surface of the die pad, and the bottom surface of the interposer body extend in generally co-planar relation to each other.

7. The interposer of Claim 1 wherein the interposer body includes an integral pedestal which is disposed on the top surface thereof and extends over portions of each of the interposer leads.

8. The interposer of Claim 1 further in combination with:

a plurality of package leads supported by at least one of the interposer body and the interposer leads;

a semiconductor die attached to the top surface of the die pad and electrically connected to at least some of the interposer leads and the package leads; and

a package body at least partially covering the semiconductor die, the interposer and the package leads such that at least portions of the package leads, the lands of the interposer leads and the bottom surface of the die pad are exposed in the package body.

9. The interposer of Claim 8 wherein the lands and the bottom surface of the die pad are exposed in and substantially flush with a bottom surface of the package body, and portions of the package leads protrude from respective side surfaces of the package body.

10. The interposer of Claim 8 wherein the lands, the bottom surface of the die pad, and portions of the package leads are exposed in and substantially flush with a bottom surface of the package body. ✓

11. An interposer for use in a semiconductor package, the interposer comprising:

a die pad having opposed top and bottom surfaces and a peripheral edge;

a layer of adhesive tape attached to the top surface of the die pad and extending along the peripheral edge thereof, the layer and the top surface of the die pad collectively defining a cavity of the interposer; and

a plurality of electrically conductive interposer leads attached to the adhesive tape and extending at least partially about the die pad in spaced relation to each other, each of the interposer leads defining a land.

12. The interposer of Claim 11 wherein each of the interposer leads includes a finger portion having a top surface which extends in spaced, generally parallel relation to the top surface of the die pad and is electrically isolated therefrom by the layer of adhesive tape.

13. The interposer of Claim 12 wherein:

the finger portion of each of the interposer leads has an interior terminal end which extends to the cavity, and an exterior terminal end which extends beyond the peripheral edge of the die pad; and

each of the interposer leads further includes a protuberance which projects downwardly from the finger portion in close proximity to the exterior terminal end thereof, the protuberance being oriented outward of the peripheral edge of the die pad and defining the land.

14. The interposer of Claim 13 wherein the land and the bottom surface of the die pad extend in generally co-planar relation to each other.

15. The interposer of Claim 12 wherein:

the finger portion of each of the interposer leads has an interior terminal end which extends to the cavity and an exterior terminal end which extends beyond the peripheral edge of the die pad; and

each of the interposer leads includes a downset which is formed within the finger portion thereof in close proximity to the exterior terminal end, the downset defining the land.

16. The interposer of Claim 15 wherein the land and the bottom surface of the die pad extend in generally co-planar relation to each other.

17. The interposer of Claim 11, further in combination with:

a plurality of package leads supported by the interposer leads;

a semiconductor die attached to the top surface of the die pad and electrically connected to at least some of the interposer leads and the package leads; and

a packaged body at least partially covering the semiconductor die, the interposer and the package leads such that at least portions of the package leads, the lands of the interposer leads and the bottom surface of the die pad are exposed in the package body.

18. The interposer of Claim 17 wherein the lands and the bottom surface of the die pad are exposed in and substantially flush with a bottom surface of the package body, and portions of the package leads protrude from respective side surfaces of the package body.

19. The interposer of Claim 17 wherein the lands, the bottom surface of the die pad, and portions of the package leads are exposed in and substantially flush with a bottom surface of the package body.

20. An interposer for use in a semiconductor package, the interposer comprising:

a die pad having opposed top and bottom surfaces and a peripheral edge;

a plurality of electrically conductive interposer leads, each of the interposer leads defining a land; and

a means for forming a non-conductive barrier between each of the interposer leads and between the interposer leads and the die pad.